REMARKS

Reconsideration of the above-identified application is respectfully requested in view of the foregoing amendments and the following remarks.

The Pending Claims

Claims 1-13 are currently pending. New claims 9-13 have been added. Claims 1-13 are directed to a positive-working lithographic printing plate precursor.

Summary of the Office Action

The application is objected to for not complying with 35 U.S.C. 119(e).

Claims 1-8 stand rejected under 35 U.S.C. § 102 as anticipated by Urano et al. (i.e., U.S. Patent Application Publication 2002/0058207).

Discussion of the Section 119(e) Objection

The objection to the specification should be withdrawn in view of the preliminary amendment submitted on July 2, 2003, which complies with 35 U.S. C. 119(e). A copy of the preliminary amendment, and post card receipt, is attached hereto. To the extent not previously entered, applicants respectfully request entry of the amendments set forth in this preliminary amendment.

Discussion of the Section 102 Rejection

The anticipation rejection of claims 1-8 over Urano et al. should be withdrawn in view of the following comments.

In the Office Action, the Examiner states that

> There is no express teaching[,] however[,] [and] it is the Examiner's position the anodic oxide layer is inherently present on the surface of the aluminum substrate, as a result of the surface treatments. Additionally[,] due to the overlap in the roughness taught by Urano et al. and [the] present[] claim[], the Examiner further asserts the amount of the anodic oxide layer is expected to at least overlap with the claimed range, absent any contrary evidence.

(Office Action p. 3, ¶4(a)). Applicants submit that the assertion is not soundly based because there is no correlation between the surface roughness and the amount of aluminum oxide on the surface.

In lithography, an aluminum support is treated to improve its lithographic properties. Several treatments, such as, degreasing, graining, desmutting, anodization, and post anodic treatments may be carried out to prepare the aluminum support. Graining improves the aluminum support's water holding capacity and adhesion properties by providing a roughness to the aluminum support's surface. It is well known by the skilled person that surface roughness can be expressed as an arithmetical mean of centerline roughness (Ra).

The specific conditions applied during the graining process determine the type of grain that will be obtained. Examples of these conditions are: the type of electrolyte(s), concentration of electrolyte(s), or the applied voltage. Application of a specific combination of graining conditions will determine the type of grain formed, such as, for example, fine grain, coarse grain, even grain, or uneven grain. Fine grain is characterized by shallow depressions, while coarse grain is characterized by deep depressions. Even grain has depressions that are substantially the same depth, whereas uneven grain has depressions of varying depth. Many different process parameters determine the type of grain.

In contrast to graining, anodization results in the production of an aluminum oxide layer on the surface of the aluminum support. This aluminum oxide layer increases the abrasion resistance and hydrophilic nature of the aluminum support. The thickness of the aluminum oxide layer is determined by the specific anodization conditions such as, for example, the type of electrolyte(s), the concentration of the electrolyte(s), the temperature, the voltage, and the reaction time.

Generally, aluminum supports used for lithographic printing plates are first grained and afterwards anodized to improve the lithographic properties. It is clear that these two treatments, graining and anodization, are carried out independently from one another. The type of grain on the surface depends on the graining conditions, whereas the thickness of the aluminum oxide layer depends on the anodization conditions. Therefore, the assertion that the surface roughness is correlated to anodized aluminum oxide layer is improper. More details about the relationship between various production conditions for graining or

anodization can be found in "Management of Change in the Aluminum Printing Industry" by F. R. Mayers, ATB Metallurgie Journal (2002), 42 (1-2), 69-77 (which is referenced in the specification at page 4 lines 22-23).

For these reasons, and absent the aforementioned correlation, withdrawal of the rejection is respectfully requested.

The Office Action also states that Urano et al. anticipates pending claims 5 and 6. The Office Action remarks that "The photosensitive layer further contains a solubility-suppressing agent that is considered to lower the solubility of the novolak resin in the alkali developer by forming a hydrogen bond with the novolak resin...The solubility-suppressing agent meets the present limitations of the water-repellent dissolution inhibitor." (Office Action page 3, ¶4(a)) Although Urano et al. discloses a solubility-suppressing agent, nowhere does it disclose or suggest the use of a dissolution inhibitor, let alone a water-repellent dissolution inhibitor.

Withdrawal of the rejection relative to claims 5 and 6 on this basis is respectfully solicited.

Conclusion

The application is considered in good and proper form for allowance, and the Examiner is respectfully requested to pass this application to issue. If, in the opinion of the Examiner, a telephone conference would expedite the prosecution of the subject application, the Examiner is invited to call the undersigned attorney.

Respectfully submitted,

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Date: December 3, 2004

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PATENT
Attorney Docket No. 223328
Client Reference No. GN 02066 CHEMSMOOTH

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re Application of:

Van Damme et al.

Application No. Unassigned

Filed: July 2, 2003

Art Unit: Unassigned

Examiner: Unassigned

For: POSITIVE-WORKING LITHOGRAPHIC PRINTING PLATE PRECURSOR

PRELIMINARY AMENDMENT

Mail Stop Patent Application
Commissioner for Patents
P.O. Box 1450
Alexandria, VA 22313-1450

Dear Sir:

Prior to the examination of the above-identified patent application, please enter the following amendments and consider the following remarks.

SPECIFICATION AMENDMENTS

At page 1, line 2, insert:

--This application claims the benefit of U.S. Provisional Patent Application No. 60/395,831 filed July 15, 2002, which is incorporated by reference.--

Replace the paragraph beginning at page 2, line 17 with:

--It is an aspect of the present invention to provide a positive-working thermal lithographic printing plate precursor with improved shelf life. This object is realized by the ~~material of claim 1, having the~~ characterizing feature ~~that~~ of a low surface roughness of the grained and anodized aluminum support which unexpectedly provides an improved shelf life of the material. Specific embodiments of the invention ~~are defined in the dependent claims~~ will be apparent from the description of the invention provided herein.--

Replace the text at page 14 above line 1 with:

~~[CLAIMS]~~ We claim:

CLAIM AMENDMENTS

1. (Original) A positive-working lithographic printing plate precursor comprising (i) a grained and anodized aluminum support having a hydrophilic surface and (ii) a heat-sensitive oleophilic coating provided on the hydrophilic surface, wherein said coating is capable of dissolving in an aqueous alkaline developer at a higher dissolution rate in areas of said coating which are exposed to heat or infrared light than in unexposed areas, characterized in that the hydrophilic surface has a surface roughness, expressed as arithmetical mean center-line roughness Ra, which is less than 0.40 μm and comprises more than 3.0 g/m^2 of aluminum oxide.

2. (Original) A plate precursor according to claim 1 wherein the hydrophilic surface has a surface roughness, expressed as arithmetical mean center-line roughness Ra, which is less than 0.3 μm.

3. (Original) A plate precursor according to claim 1 wherein the aluminum support comprises more than 4.0 g/m^2 of aluminum oxide at the hydrophilic surface.

4. (Original) A plate precursor according to claim 1 wherein the coating comprises (a) a hydrophobic polymer which is soluble in the developer and (b) a dissolution inhibitor.

5. (Original) A plate precursor according to claim 4 wherein the dissolution inhibitor is a water-repellent polymer.

6. (Currently Amended) A plate precursor according to claim 5 wherein the water-repellent polymer is
- a polymer comprising siloxane and/or perfluoroalkyl units; or
- a block- or graft-copolymer of a poly(alkylene oxide) block and a block comprising siloxane and/or perfluoroalkyl units.

7. (Original) A plate precursor according to claim 4 wherein the dissolution inhibitor is an organic compound comprising an aromatic group and a hydrogen bonding site.

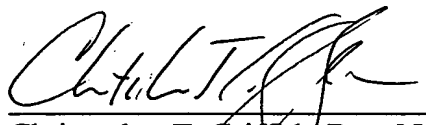
8. (Original) A plate precursor according to claim 1 wherein the coating further comprises a dissolution accelerator.

REMARKS

Conclusion

The application is considered in good and proper form for allowance, and the Examiner is respectfully requested to pass this application to issue. If, in the opinion of the Examiner, a telephone conference would expedite the prosecution of the subject application, the Examiner is invited to call the undersigned attorney.

Respectfully submitted,



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Date: July 2, 2003